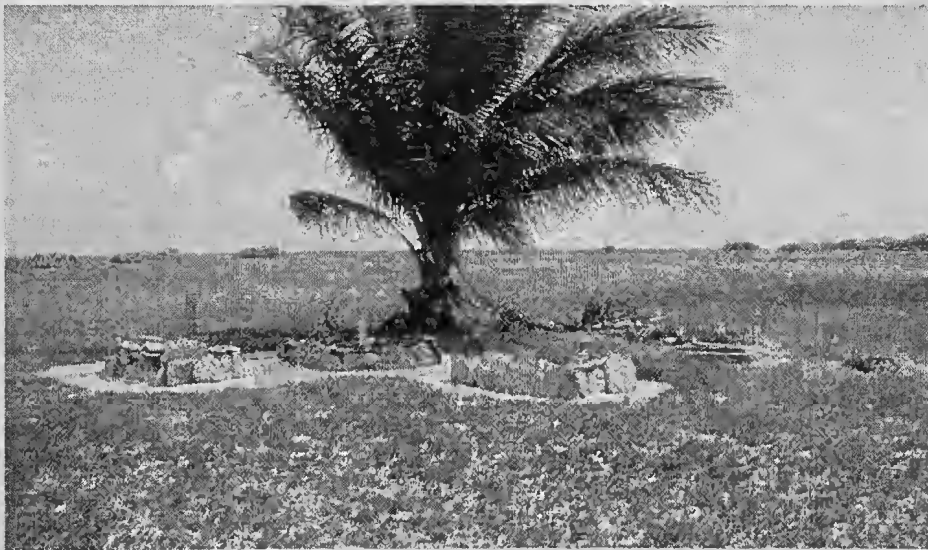


MAGNT RESEARCH REPORT NO. 8

December 2000

ASHMORE REEF; A PRELIMINARY SURVEY FOR ARCHAEOLOGICAL SITES.

PAUL CLARK



Museums and Art Galleries of the Northern Territory

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ASHMORE REEF; A PRELIMINARY SURVEY FOR ARCHAEOLOGICAL SITES.

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INTRODUCTION

This report discusses history, contact and some of the archaeological evidence of visitation that survives on three small sand islands known as Ashmore Reef (also known as the Ashmore shoals and more recently as the Ashmore Islands). It examines the evidence left by two groups of visitors, Indonesian fishers and European guano diggers and provides an explanation for the origins of the material culture discussed. The information presented in this report was collected during a short visit to Ashmore Reef in September 1996.

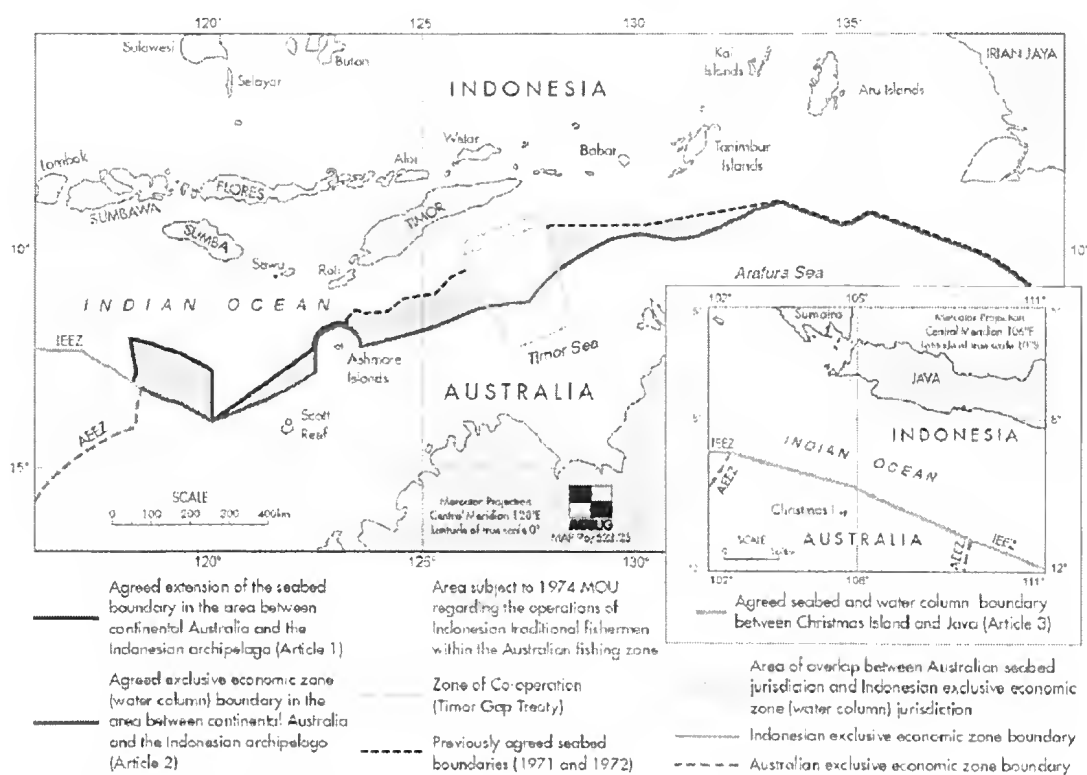
Ashmore Reef is one of several reef structures that lie on the north-western edge of the Australian continental shelf, in the eastern part of the Indian Ocean (12° 13' S and 123° 05' E). Although Australian territory, Ashmore Reef and nearby Cartier Island are strategically located on the edge of Australia's maritime boundary with Indonesia (Fig. 1). They are much closer to the Indonesian island of Rote (approximately 78 n miles or 145 km) than to mainland Australia (approximately 190 n miles or 350 km). Known as *Pulau Pasir* (sand island) in Bahasa Indonesia, the area contains three small low-lying sand islands and several sandbanks and lagoons which are surrounded by a fringing reef.

The three small islands named West, Middle and East or *pulau satu*, *dua* and *tiga* (island one, two and three in Bahasa Indonesia) are approximately 2.5 – 3 m above the high water mark and are covered with grasses, small herbs and several species of salt-tolerant bushes. West and Middle Islands also have a few coconut trees, which were planted in the late 1970s and early 1980s (Pike and Leach 1997: 21). West Island, the largest of the three, is approximately 1 km long by 440 m wide.

The fringing reef is approximately 28 km long by 15 km wide and encloses an area of approximately 239 km² (Pike and Leach, 1997: 2). The reef is unbroken on the southern and eastern sides but broken and irregular on the northern side providing entrance to two lagoons. Each of the islands has a lens of potable fresh water contained within the coralline sands. The vegetation on each of the islands is strongly affected by a wet and dry season climate and the potable water on West Island can become a little brackish (although still drinkable) towards the end of the dry season, during October and November (Steve Tester, pers. comm., 1996).

Ashmore Reef has seen numerous arrivals and departures over the years. Fishers from the eastern part of Indonesia were probably the first, visiting the islands and fringing reef prior to European discovery in the early 1800s. Generally referred to as 'Malays' by the Europeans in the 19th

century, these people visited the northern coast of Australia in order to collect a variety of marine products, mainly trepang (holothurians), but also turtle shell, pearls and dried fish (Crawford 1969, Macknight 1976). Their activities, on the northern and north-west coast of Australia, in the Indian Ocean and the Timor Sea during that time was recorded by a number of people including Flinders (1814), Baudin (Cornell 1974), King (1827) and Searcy (1909). More recent archaeological and ethnographic studies by Crawford (1969) and Macknight (1976) have provided further information regarding the activities of these early visitors.



Map 5 - Consolidated depiction of all Australian-Indonesian maritime boundaries after entry into force of the Treaty

Fig. 1. Ashmore Reef location map and Australia-Indonesia maritime boundaries (Commonwealth Department of Foreign Affairs and Trade 1996)

Descendants of these maritime peoples, particularly those from Rote, Madura, and the Tukangbesi Islands, but others also from Sulawesi and Buton, continue to visit the islands today for the same purpose of collecting marine produce as their forebears some 300 years earlier. Access to these resources are permitted under an agreement known as the Memorandum of Understanding (MOU), which was agreed to between the Governments of Australia and the Republic of Indonesia in November 1974 (ANPWS 1989: 10).

Others, such as American whalers and guano diggers, are also been known to have visited and have left their mark on the islands by way of altered landscapes and discarded items of material culture (Woodward 1917: 10; Fairbridge 1948: 213-214). In addition at least one group of shipwrecked sailors from the ill fated *Magda*, wrecked off Melville Island in 1858, is also known to have reached Ashmore Reef in the mid 19th century (*Sydney Morning Herald* 20 July 1858 p. 4).

In 1945 the Royal Australian Navy vessels HMAS *Tiger Snake* and HMAS *River Snake* are believed to have visited the islands with the purpose of placing survival equipment in caches for downed airman and shipwrecked sailors (ANPWS 1989: 13). Petroleum exploration companies (Crawford 1969) and personnel from the Bureau of Meteorology have also spent time on the islands (ANPWS 1989: 13).

In August 1983 Ashmore Reef was made an Australian National Nature Reserve, under the *National Parks and Wildlife Act* 1975 (ANPWS 1989: 12-14). Today, Environment Australia manages the area with regular visits by contract staff, management personnel, scientific researchers, Australian Customs and the Australian Navy. The most recent group of visitors to the region (the first arriving in March 1995) have however, been boat people seeking entry into Australia (Steve Tester, pers. comm., 1996). Also known in the Australian press as refugees, illegal immigrants and asylum seekers, these people have come from countries as far afield as Afghanistan, Iraq and Sri Lanka.

DISCOVERY AND SOVEREIGNTY

In February 1803, while surveying the north coast of Australia, Matthew Flinders was surprised to discovered a number of Malay vessels to the west of Cape Wilberforce at a place he subsequently called Malay Road. Flinders was astonished to discover that the boats and crews had come from Makassar (Unjung Pandang) the port in the south of the island of Sulawesi, Indonesia. They had arrived approximately two months previously and were engaged in collecting trepang which they processed and took back to sell to the Chinese (Flinders 1814: 229-233).

In April two months later, while resupplying his ship in Kupang, West Timor, Flinders was given more information about the activities of these people.

The natives of Makassar had been long accustomed to fish for the trepang amongst the islands in the vicinity of Java, and upon a dry shoal lying to the south of Rottee (Flinders 1814: 257).

The 'dry shoal' to the south of Rote to which Flinders' informants were referring was probably a reference to Ashmore Reef and/or perhaps Hibernia Reef and Cartier Island. It could also have been, however, a more general reference to include others such Seringapatam and Scott Reef which are much further to the south of Rote, off the coast of Western Australia.

It is interesting to note that at about the same time that Flinders was in Kupang, Nicolas Baudin, the French explorer, also met with Malay fishers off the north Australian coast. In April 1803 Baudin sighted four canoes with several fishers of Malay origin dressed in the style of the inhabitants of Timor (Cornell 1974: 539-540). Baudin's men, Francois Peron and Louis Freycinet, subsequently counted 24 vessels fishing for trepang near the Holothuria Banks, which lies just off the Kimberley coast, Western Australia, about 185 n miles or 340 km to the south-east of Ashmore Reef (Peron and Freycinet 1816, Vol. 2: 247).

Macknight (1976: 94-95) reports that Dutch archives give an account of a Chinese trader in 1751 seeking turtle shell from shoals south of Timor (possibly Ashmore Reef or one of the others). After five days sailing before the wind and two days of drifting the vessel reached the north Australian coast. Pressed for further details by the directors of the Dutch East India Company in

Amsterdam, the Dutch resident replied in 1754 that voyages (to north Australia) were made now and then from Timor and Makassar but that only trepang and wax were obtained. Also working from Dutch archival records Fox (1998: 118-120) believes that some Indonesian fishers, in particular the Bajo (Bajau), were probably the first Indonesian maritime peoples to visit the Ashmore Reef system sometime in the early 1700s. It is evident therefore that by at least the 1800s Indonesian fishers were familiar with parts of the northern coast of Australia and with some, if not all, the reefs and shoals that run along the north-west of the Australian continental shelf.

European discovery of Ashmore Reef was made by Captain Samuel Ashmore of the English brig *Hibernia* on the 11 June 1811 (Fairbridge 1948: 209). European interest in the reef however, did not occur until guano was discovered in the 1870s (Woodward 1917: 9-28, Fairbridge 1948: 213-214). A dispute regarding sovereignty developed between the British Colonial Office and the United States State Department and was only resolved when Britain annexed the Ashmore Islands in 1878 (Fairbridge 1948: 214).

In 1934, the British transferred ownership to the Commonwealth of Australia (*Ashmore and Cartier Islands Acceptance Act* 1933). Under that legislation, the Western Australian government was empowered to administer the new territory. The Western Australians, however, feared that the cost of controlling the islands would outweigh the benefits and returned the islands to the Commonwealth in 1938. In that same year, the Commonwealth vested control of the islands with the Administrator of the Northern Territory, an arrangement that continued until the Northern Territory was granted self-government in 1978. Following self-government, the Commonwealth re-assumed responsibility for Ashmore Reef. In 1983 the area was declared a National Nature Reserve.

ARCHAEOLOGICAL SURVEY

In September 1996, the author made a short visit to Ashmore Reef with the aim of conducting archaeological and ethnographic fieldwork. A preliminary survey for archaeological sites was made, but complete ground surveys of each of the islands were not possible for a number of reasons. Access to Middle and East Islands via a small boat meant that time, tide, and weather conditions were limiting factors. Rookeries with nesting birds (terns, boobies and frigatebirds) on Middle and East Island also hindered survey work, as it was not possible to survey large areas of the island without disturbing them. Consequently only the more obvious or accessible sites were investigated and recorded. Another factor affecting the surveys, particularly of West Island, was the lack of visibility in various places due to the vegetation cover on the ground. Although most of the herbs and grasses had dried off during the dry season, the dry vegetation still hampered good visibility.

West Island received the most attention, with approximately four and a half days work, most of which was spent recording the graves near the coconut tree at the south-eastern end of the island. Other areas examined on West Island but not recorded in detail were the remains of two old wells, a weather station that was erected in 1962 and finally abandoned in 1973 (ANPWS 1989: 13) and a possible trepang processing site located on the south western side of the island. East Island received the least attention with only two hours fieldwork undertaken, which enabled a few graves, a well and a helicopter-landing pad to be located and photographed.

CERAMICS

Ceramic material, glazed stoneware and particularly low-fired earthenware pottery shards are found on all three islands. These shards are found in scatters on the islands, the beach, and in the shallow waters surrounding the islands. At least one random collection of ceramic material has been made at Ashmore Reef (Crawford 1969, Burns 1990) but no systematic collection, location or analysis of the material has been made to date. On West Island there are at least two areas where ceramic material is more likely to be found (there may of course be others). The first of these and that with the greater concentration of artefacts, is the area adjacent to the concrete foundation of the old Weather Station and around the old abandoned wells located near the centre of the island. The other noticeable concentration is on the beach at the south-eastern end in what appeared to be a natural gutter or channel running from the base of the beach slope out towards the reef edge through sand flats (Fig. 2).

The earthenware material (cooking pots and plates) undoubtedly originates from Indonesia, probably from the islands in the eastern provinces such as Sulawesi, Buton, Timor, Rote and Aru and was bought to Ashmore by Indonesian fishers. Crawford (1969) also documents visits by vessels from the island of Madura. It is interesting to speculate on how the ceramic material came to be where it was. Shards found around the area of the wells, particularly the glazed stoneware, are from water containers probably broken in the act of collecting water and subsequently discarded. The material however, needs to be collected systematically and the spatial relationships analysed before form and functional attributes can be diagnosed and a more authoritative explanation provided. The same argument applies to the material from the gutter, where possible events such as shipwreck could provide a plausible explanation for its deposition.

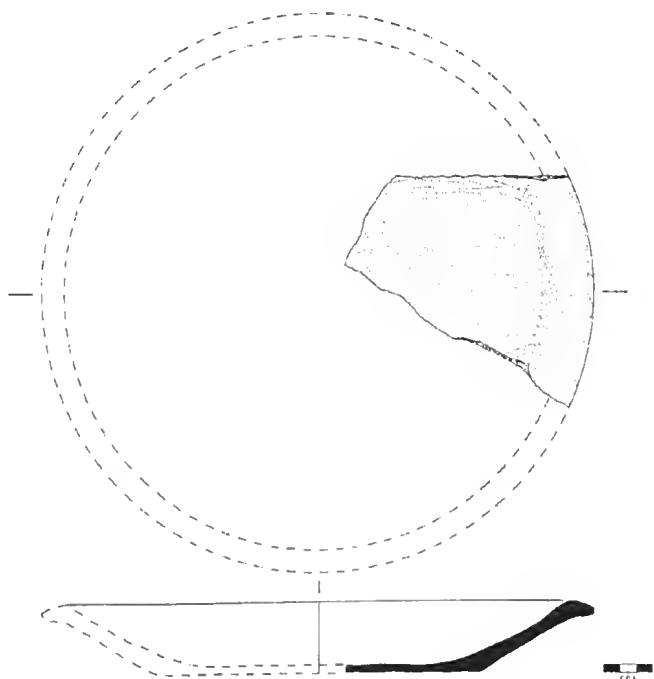


Fig. 2. Earthenware plate shard, from the area known as the 'gutter' south-eastern end, West Island.

In recent years, ceramics have generally been replaced on Indonesian *perahu* (boats) by aluminium and plastic containers. During the survey period, 18 Indonesian fishing *perahu* visited Ashmore Reef and anchored in the lagoon opposite West Island. All 18 vessels carried their water in large plastic or metal 200 L drums. These containers were stowed below decks on their sides rather than on their ends and had a small square hole, approximately 15-20 cm cut through the top side of the drum to allow water to be poured in and scooped out. In addition to the 200 L containers, the *perahus* also carried an assortment of plastic 20-30 L containers. Four of the vessels however, also had a ceramic water container on board.

In each case, these ceramic jars were of the same design. They measured approximately 40-50 cm high with a maximum body diameter at the shoulder of about 30-40 cm. Known as *guci* by the Indonesian fishers, they are glazed stoneware jars which are obtained from Singapore. Imported from China, they contained pickled vegetables which the Chinese merchants in Singapore sell to households and restaurants. They then sell or trade the empty jars to the Indonesian fishers who use them as water containers in their houses and on their boats (Dan Dwyer, pers. comm., 1997). In the past it was these *guci* jars rather than plastic containers which were used to carry water from the well on the island back to the boat.

In addition to the *guci* shards, a limited number of other stoneware shards, mainly creamware plate, cup and saucer fragments can also be found in the vicinity of the old wells on West Island (Fig. 3). These date to the 1870-1900s and are probably a result of activity by guano diggers. The earliest record of guano collection from the offshore islands that run along the north-western edge of the Australian continental shelf down into Western Australian waters is 1847; although which island or the amount taken is not mentioned (Woodward 1917: 9-28). By 1891 all guano was reported to have been removed from Ashmore Reef and evidence in the form of old rails and tanks was all that remained (Fairbridge 1948: 193-218). A small isolated body fragment of blue and white Chinese porcelain was also found on Middle Island on the south-western shore near a rocky outcrop. It was found in association with black bottle glass. Chinese porcelain was not found on either of the other two islands.

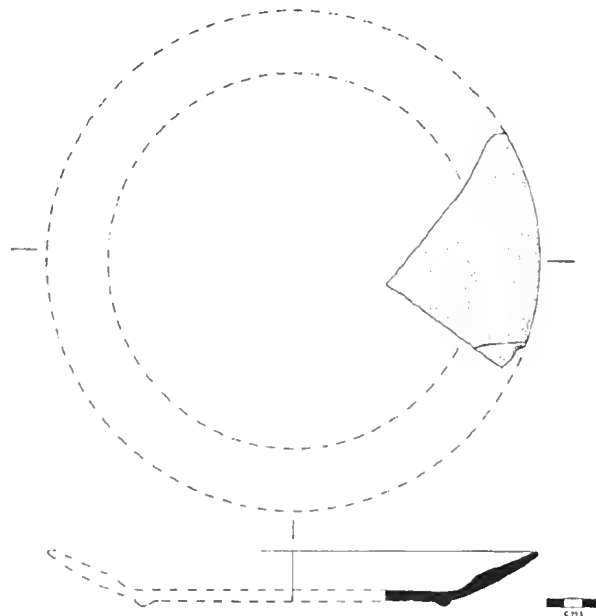


Fig. 3. Stoneware fragment, creamware plate, near the old wells, West Island.

GLASS

Black bottle glass has been found on both West Island and Middle Island. On West Island the bottle glass is located in the vicinity of the old wells in the same general location as the ceramic material (Fig. 4). On Middle Island the bottle glass is found in the shallows at the south-western end of the island near a rocky outcrop (Fig. 5).

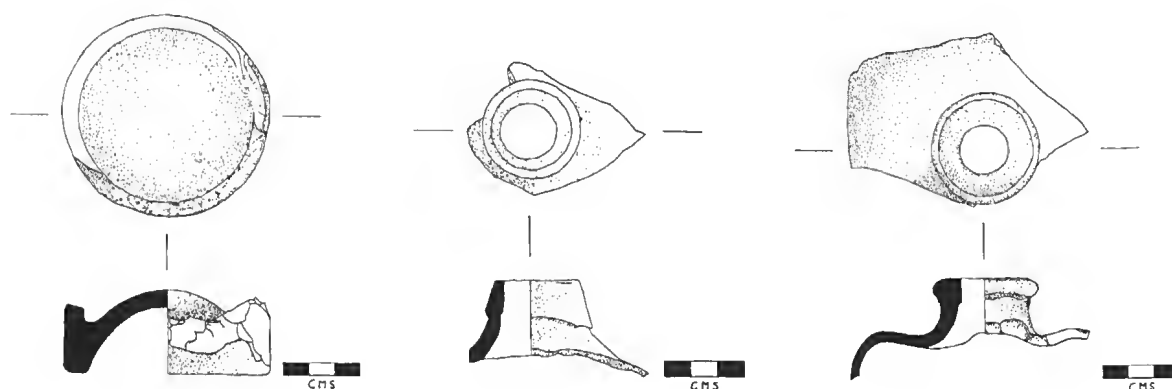


Fig. 4. Black bottle glass found near the old wells, West Island.

These bottles range in date from the 1830-40s to the early 1900s. Some of the crew of the Swedish ship *Magda*, wrecked in 1858 on Melville Island, are known to have reached Ashmore Reef in the ship's boat, where they discarded material to lighten the vessel so as to clear part of the reef (*Sydney Morning Herald* 20 July 1858: 4). The bottles however, could just as likely have been discarded by others such as Indonesian fishers, guano diggers or American whalers, who have been attributed with the discovery of guano on the islands.

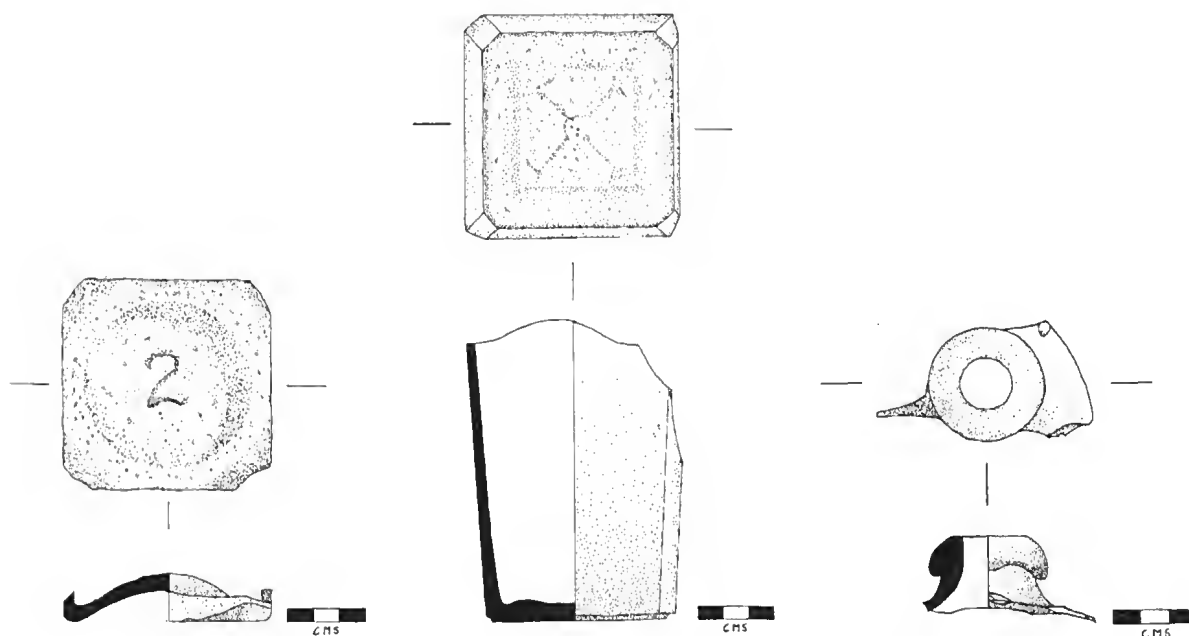


Fig. 5. Black bottle glass, south-western end, Middle Island.

ABANDONED WELLS

As previously mentioned, each of the three islands has a lens of fresh water contained within the coralline sands. Consequently, there are remains of a number of old wells and possible soaks on each of the islands. West Island has at least two, possibly three old wells located near the centre of the island. These wells are characterised by circular depressions in the sandy soil (Fig. 6). Middle Island has one well located beside three coconut trees near the centre of the island and East Island has one which has the remains of a square concrete border. There may of course be others, but further research has yet to be undertaken to determine this.

These abandoned wells offer interesting possibilities for future archaeological research as they may contain items of material culture, which could explain the identity, and origins of the people who constructed and used them. Undoubtedly Indonesian fishers dug wells and soaks in the past and quite possibly European guano diggers did also. The well on East Island with the concrete border was likely dug, or at least modified from a previously dug well, by Europeans in more recent times.



Fig. 6. An abandoned well near the centre of West Island.

GRAVES

There are gravesites of Indonesian fishers on each of the islands. To date there has been no systematic study of their location or possible ethnic origin. Serventy (1952a, b) was the first to make reference to Indonesian graves in 1949 while observing birds in the region. He noted two graves near the well on East Island. Since the declaration of the Nature Reserve in 1983, a number of park rangers have noted at different times graves on each of the three islands, with four located on East Island, two on Middle and somewhere between six and nine on West Island (Des Pike, pers. comm., 1996).

In the course of this investigation, seven graves were recorded on West Island. Six of them are grouped together in an area known as the cemetery, located near a coconut tree at the south-eastern end of the island (Figs 7, 8). A seventh grave was found 43 m to the north-east of the cemetery, close to the shoreline lying just in behind the foredune.



Fig. 7. Cemetery at the south-eastern end of West Island.

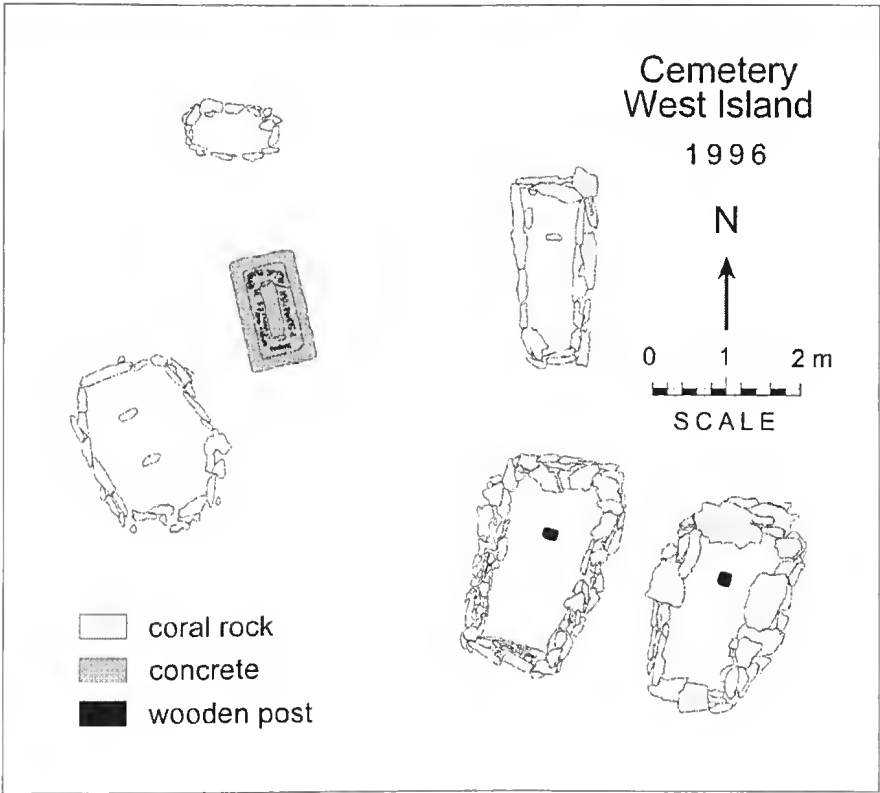


Fig. 8. Site plan of graves at the cemetery on the south-eastern end of West Island

Two of the graves at the cemetery were marked with a rectangular perimeter of coral rocks (or beach rock resulting from cementation of coral sands) and a painted square-shaped wooden post with a name and date marked. A third grave was marked in a similar way, but instead of a wooden marker the grave had a flat rounded piece of coral rock as a headstone. The fourth grave was also rectangular in shape, but was constructed of concrete and had what appeared to be two names, one on each side carved into the cement. The remaining two graves at the cemetery site were marked with a circular ring of coral rock, the larger of the two having two coral rock markers. Five of the graves are approximately aligned north-south, while the smallest grave, marked with a circle of coral rock appears to be aligned east-west (Fig. 8). The seventh grave, located to the north-east of the cemetery at the shoreline, was aligned north-east by south-west.

On Middle Island a single grave is located at the south-eastern corner. The grave is rectangular in shape measuring approximately 1.85 m long by 0.95 m wide (Fig. 9). The base is constructed of small coral rocks and is coated or capped with a whitewash of lime paste to form a smooth flat surface. The grave is aligned north south with two wooden markers at each end. This grave is apparently that of a Madurese fisherman from the island of Tunduk (Tonduk) and is tended on a regular basis, every two to three years (Steve Tester, pers. comm., 1996).

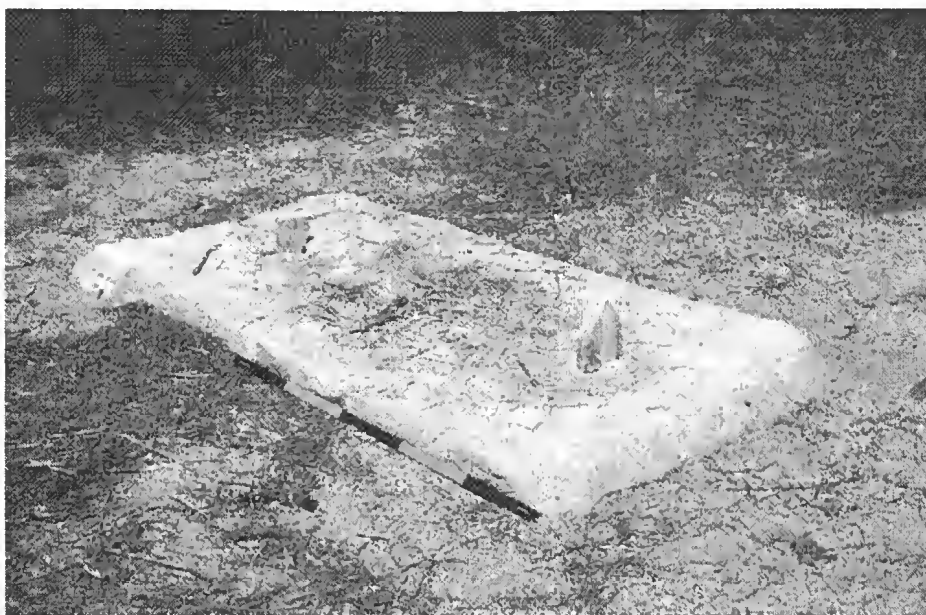


Fig. 9. Madurese grave on Middle Island.

In recent years, a number of older unmarked graves on East Island have been eroded exposing skeletal material. Uncovered by wind and wave action, the bones were eventually washed away by the sea (Des Pike, pers. comm., 1996).

TREPANG PROCESSING SITE

On the southern side of West Island, about midway along the beach above the high water mark, there are a number of large slabs of coral rock which have been arranged in a manner that suggests a fireplace for the processing of trepang (Fig. 10). There is some evidence that there

may have been more than one bay or fire place, but damage to the site over the years, probably from turtles digging holes in the sand around the site to lay their eggs, has destroyed the integrity of one bay and possibly more.

Further research is needed in regard to this site, as confirmation that it is in fact a trepang cooking site will only be established by careful excavation. The remains appear to be robust enough in the short term, but thought must be given to its long-term conservation particularly in regard to continued turtle activity. The question as to which type of trepang site it represents also needs to be answered. Macknight (1976) describes the trepang sites found on the Arnhem Land coast, while Crawford (1969) and more recently Morwood and Hobbs (1997) describe types found on the Kimberley coast. Comparison of these types with that on West Island will be relevant in any investigation of this site in the future.

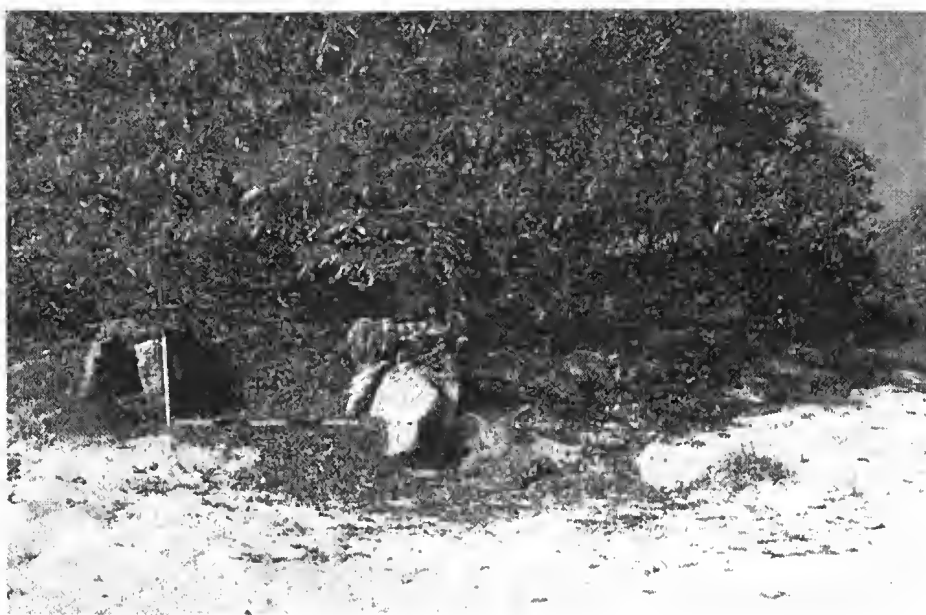


Fig. 10. Trepang processing (boiling) site, West Island.

MISCELLANEOUS SITES AND RELICS

Several isolated exotic stones (ballast stones) were also noted on the reef top and near the shore on the south eastern side of West Island. The stone is probably from Indonesian *perahu* wrecks, washed inshore from the reef edge where the vessel came to grief. Several terracotta bricks (possibly ballast bricks) have also been recorded, but the origins of these is unknown. In 1986, on the western side of West Island, part of a large iron anchor was uncovered on the beach (Des Pike, pers. comm., 1996). Presumably this has since been covered over again by sand and consequently was not seen during the present fieldwork.

It should be noted that a number of shipwrecks (Indonesian *perahu*) on Ashmore Reef have been noted in recent years and the remains of one was observed at the south east end of West Island. Little of the *perahu*'s timbers remained and there were recent signs that the site was being used as a source of fire wood. In addition to *perahu* wrecks, a number of refugee boats have been scuttled in the lagoon at West Island.

CONCLUSION

Unfortunately the general environment of the Ashmore Reef system, with its shifting sands and extreme climate, is not helpful to the long-term survival of cultural material or archaeological deposits. Despite these problems, there is still a large amount of information that can be used in conjunction with the little documentary evidence that does exist to increase our understanding of the place. In particular, it is the history of resource use on the islands that is most interesting. Although there is historical, ethnographic and archaeological evidence of visitation by Indonesian fishers on a regular seasonal basis, there is no evidence today that indicates longer-term habitation.

The history of European visitation is also one of short-term use, although it differs considerably from Indonesian visitation in that it lacks the continuity of purpose. The 19th century European guano exploitation was probably a very short visit in terms of time, but one which changed the islands considerably (West Island in particular). The affect and change to the landscape caused by the removal of the guano still remains to be quantified.

More historical research, particularly in regard to the guano industry and the activities of the people involved, needs to be undertaken in order to form a more complete understanding of the cultural history of Ashmore Reef. In addition, further archaeological work remains to be done in regard to the trepang site on West Island and the wells on each of the islands. Excavation may answer a number of questions in regard to their construction and use. Indonesian fishers past and present have left and are still leaving, evidence of their activities today. In many cases, the products that are sought (trepang for example) and the methods used to collect them today are probably similar to those used in the past. The opportunity therefore exists for ethnographic studies to augment and support the historical and archaeological evidence.

ACKNOWLEDGMENTS

I would like to thank Environment Australia (previously Parks Australia North) who enabled this fieldwork to take place and also to acknowledge the support I have received since. I would also like to thank the Australian Customs Service and the master and crew of the ACV *Sir Austin Chapman*, who transported me to Ashmore reef. I must also thank the master and crew of *Aurelia IV* who provided me with accommodation at Ashmore Reef and the master and crew of Royal Australian Navy patrol boat HMAS *Wollongong* PTF-206 who kindly returned me to Darwin. Dr Mickey Dewar, Dr Barry Russell and Dr Dirk Megirian read and commented on a previous draft of this paper for which I am very grateful. Silvano Jung drew the artefact drawings in figures 2,3,4 & 5. Steve Tester (master of the *Aurelia IV*) and Des Pike (Parks Australia North) deserve special thanks for sharing the knowledge they have in regard to Ashmore Reef. Finally I would like to thank Dr Natasha Stacey and in particular Dan Dwyer for their support and thought provoking discussions on Indonesian maritime culture.

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